

CLAIMS

1. A diagnostic test apparatus comprising:
5 a shaft having a first end and a second end;
a swab or a biopsy punch mounted on the first end of a shaft; and
a cap for fitting over the first end of the shaft, said cap containing at least one
diagnostic test reagent;
wherein the shaft comprises at least one cap engagement element located proximate to the
10 first end, said element extending radially outwardly of the swab or the biopsy punch for
engagement with the cap to retain the cap on the shaft.
2. A diagnostic test apparatus according to any preceding claim, wherein the cap
engagement element is selected from the group consisting of: a tapered region of the shaft
15 for forming an interference fit with the cap, a snap-fitting projection for forming a snap-fit
with one or more complementary projections on an inner surface of the cap, and a thread
projection for forming a screw fit with one or more complementary threads on an inner
surface of the cap.
- 20 3. A diagnostic test apparatus according to any preceding claim, wherein the shaft is
hollow, whereby a fluid can be passed down the shaft to expel a biological sample from the
swab or the biopsy punch.
4. A diagnostic test apparatus according to any preceding claim, wherein the
25 complementary fitting elements on the cap and the shaft are adapted to provide a
substantially liquid-tight seal between the cap and the shaft.
5. A diagnostic test apparatus according to any preceding claim, wherein, when the
cap is secured on the shaft, the swab or the biopsy is in contact with an absorbent material
30 that can wick fluid from the swab or the biopsy to the one or more diagnostic reagents.
6. A diagnostic test apparatus according to any preceding claim, wherein a swab is
attached to the first end of the shaft and the sample receiving port of the cap is

dimensioned such that, when the cap is secured on the shaft, the swab is compressed by the diagnostic cap to squeeze fluid out of the swab.

7. A diagnostic test apparatus according to any preceding claim, wherein a biopsy
5 punch is attached to the first end of the shaft and the cap further comprises an internal projection adapted to crush or macerate a tissue sample in the biopsy punch when the punch is secured on the cap.
8. A diagnostic test apparatus according to any preceding claim, wherein the cap is at
10 least partially transparent, or the cap comprises one or more window openings therein, to permit visual observation of a diagnostic indicator inside the cap.
9. A diagnostic cap for use in an apparatus according to any of claims 1 to 8,
comprising a substantially cup-shaped body, an absorbent plug located within the body,
15 and at least one diagnostic test reagent located in or around the absorbent plug.
10. A diagnostic cap according to claim 9, wherein the at least one diagnostic test
reagent is provided in or on an annular diagnostic strip extending radially around the inside
of the cap.
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11. A diagnostic cap according to claim 9, wherein at least one diagnostic test reagent
is provided in or on a diagnostic sheet extending transversely across the inside of the cap.
12. A diagnostic cap according to claim 9, wherein the absorbent plug has an
25 uncompressed volume of from about 10 to about 1000mm³, preferably from about 50 to about 300 mm³.
13. A diagnostic cap for use in a diagnostic apparatus according to any of claims 1 to 8,
wherein the cap comprises a sample receiving port having an interior surface configured
30 for engagement with the cap engagement elements on the shaft, and a housing defining a lateral flow path for a liquid sample, the lateral flow path having an inlet end in fluid communication with the sample receiving port

14. A diagnostic cap according to claim 13, wherein the housing further comprises a base for the cap, whereby the cap can rest on said base on a horizontal surface with the sample receiving port opening in an upward direction to receive the shaft.

5 15. A diagnostic cap according to claim 14, wherein the housing has a substantially flat lower surface forming said base for the housing, and the sample receiving port opens upwardly from an upper surface of the housing opposite said flat lower surface.

16. A diagnostic cap according to claim 14 or 15, wherein the lateral flow path extends
10 substantially in a plane that is substantially perpendicular to the axis of the sample receiving port.

17. A diagnostic cap according to any of claims 14 to 16, wherein the housing contains a plurality of lateral flow paths for detecting a plurality of different analytes.

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18. A diagnostic cap according to claim 17, wherein the plurality of lateral flow paths are spaced radially around the sample receiving port, preferably in a plane substantially perpendicular to the axis of the sample receiving port.

20 19. A diagnostic test system comprising a first diagnostic test apparatus according to any of claims 1 to 8, wherein the shaft has a swab attached thereto, and a second diagnostic test apparatus according to any of claims 1 to 8, wherein the shaft has a biopsy punch attached thereto, and wherein the diagnostic caps can be secured interchangeably on the shafts of the first and second apparatuses.

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